

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A disc replacement device comprising:
a first shell;
a second shell;
a fulcrum disposed between the first and second shells, wherein the fulcrum is a an
~~entirely~~ spherical ball bearing having a substantially spherical surface; and
a damping sleeve disposed between the first and shells,
wherein each of the first shell and the and second shell comprises:
a first surface adapted for articulating ~~[[with]]~~ relative to the fulcrum, the first
surface having a first surface shape different than the spherical surface; and
a second surface adapted for coupling with the damping sleeve, the first surface
being separated from the second surface.
2. (Cancelled).
3. (Previously presented) The disc replacement device of claim 1 wherein the first surface
shape comprises a flat surface.
4. (Currently amended) The disc replacement device of claim 1 ~~claim 2~~ wherein the first
surface shape comprises a concave surface.
5. (Previously presented) The disc replacement device of claim 1 wherein the first surface
shape comprises an irregular surface.
6. (Previously presented) The disc replacement device of claim 1 wherein the damping
sleeve is configured to provide flexibility between the first and second shell surfaces.

7. (Previously presented) The disc replacement device of claim 1 wherein the damping sleeve comprises a cross-sectional shape that varies from one cross-section to another.
8. (Original) The disc replacement device of claim 1 wherein the shell comprises a metal substance.
9. (Original) The disc replacement device of claim 1 wherein the shell comprises shape memory alloys.
10. (Original) The disc replacement device of claim 1 wherein the shell comprises an orthopedic articular bearing material.
11. (Original) The disc replacement device of claim 1 wherein the damping sleeve comprises silicone.
12. (Original) The disc replacement device of claim 1 wherein the damping sleeve comprises shape memory alloys.
13. (Currently amended) The disc replacement device of claim 1 wherein the damping sleeve is configured to define produce a cavity, the disc replacement device further comprising for receiving a lubrication medium disposed within the cavity.
14. (Original) The disc replacement device of claim 1 further comprising an internal ring.
- 15-18. (Cancelled).
- 19-22. (Cancelled).

23. (Previously presented) The disc replacement device of claim 1, wherein the first surface shape is a spherical shape having a diameter different than a diameter of the spherical surface of the ball bearing.
24. (Previously presented) The disc replacement device of claim 1, wherein the shell further comprises a closure portion about the second surface.
25. (Previously presented) The disc replacement device of claim 1, wherein the first surface is separated from the second surface by a step-like change in height.
26. (Previously presented) The disc replacement device of claim 1, wherein the first surface is separated from the second surface by an internal ring.
27. (Currently amended) A disc replacement device comprising:
a first shell having an inner surface;
a second shell having an inner surface, the inner surface of the second shell being spaced from and facing the inner surface of the first shell;
a ~~an entirely~~ spherical ball bearing having a substantially spherical surface; and
a damping sleeve extending substantially perpendicular to the inner surface,
wherein each of the first shell and the second shell comprises:
a first shell surface adapted for articulating ~~[[with]]~~ relative to the ball bearing, the first shell surface having a first surface shape different than the surface of the ball bearing; and
a second shell surface adapted for coupling with the damping sleeve.
28. (New) The disc replacement device of claim 1 wherein the damping sleeve forms a wall extending around the ball-bearing in a manner that encloses the ball bearing between the damping sleeve and the first and the second shells, the wall having a thickness that varies from one cross-section to another.

29. (New) The disc replacement device of claim 1 wherein the damping sleeve has a toroidal shape with an inner surface defining a cylindrically-shaped central cavity formed in a manner that the cylindrically-shaped central cavity is non-circular in transverse cross-section, the ball bearing being disposed in the central cavity.

30. (New) A disc replacement device for placement between first and second vertebral bodies, comprising:

- a first shell having an inwardly facing surface and an outwardly facing surface, the outwardly facing surface being configured to interface with a first vertebral body;

- a second shell having an inwardly facing surface and an outwardly facing surface, the outwardly facing surface being configured to interface with a second vertebral body;

- a spherical ball bearing comprising a substantially spherical surface disposed between and in contact with a first portion of the inwardly facing surfaces of both the first and second shells, the first and second shells each being disposed to permit articulation relative to the spherical ball bearing, the first portion of the inwardly facing surfaces of both the first and second shells having a surface shape different than the surface of the ball bearing; and

- a damping sleeve disposed between and in contact with a second portion of the inwardly facing surfaces of both the first and second shells.